be individually protected so as to prevent short circuits (by placement in original retail packaging or by otherwise insulating terminals, *e.g.*, by taping over exposed terminals or placing each battery in a separate plastic bag or protective pouch) and carried in carry-on baggage only. In addition, each installed or spare battery must not exceed the following:

(i) For a lithium metal battery, a lithium content of not more than 2

grams per battery; or

(ii) For a lithium-ion battery, an aggregate equivalent lithium content of not more than 8 grams per battery, except that up to two batteries with an aggregate equivalent lithium content of more than 8 grams but not more than 25 grams may be carried.

- (18) Portable electronic devices (for example, cameras, cellular phones, laptop computers, and camcorders) powered by fuel cell systems, and not more than two spare fuel cell cartridges per passenger or crew member, when transported in carry-on baggage for personal use under the following conditions:
- (i) Fuel cell cartridges may contain only Division 2.1 liquefied flammable gas, or hydrogen in a metal hydride, Class 3 flammable liquids (including methanol), Division 4.3 water reactive substances, or Class 8 corrosive materials;
- (ii) The maximum water capacity of a fuel cell cartridge for hydrogen in a metal hydride may not exceed 120 mL (4 fluid ounces). The maximum quantity of fuel in all other fuel cell cartridge types may not exceed:

(A) 200 mL (6.76 ounces) for liquids;

- (B) 120 mL (4 fluid ounces) for liquefied gases in non-metallic fuel cell cartridges, or 200 mL (6.76 ounces) for liquefied gases in metal fuel cell cartridges; or
 - (C) 200 g (7 ounces) for solids.
- (iii) No more than two spare fuel cell cartridges may be carried by a passenger;
- (iv) Fuel cell systems containing fuel and fuel cell cartridges including spare cartridges are permitted in carry-on baggage only;
- (v) Fuel cell cartridges containing hydrogen in a metal hydride must meet the requirements in §173.230(d);

(vi) Fuel cell cartridges may not be refillable by the user. Refueling of fuel cell systems is not permitted except that the installation of a spare cartridge is allowed. Fuel cell cartridges that are used to refill fuel cell systems but that are not designed or intended to remain installed (fuel cell refills) in a portable electronic device are not permitted;

(vii) Fuel cell systems and fuel cell cartridges must conform to IEC/PAS 62282-6-1 (IBR; see §171.7 of this sub-

chapter);

(viii) Interaction between fuel cells and integrated batteries in a device must conform to IEC/PAS 62282-6-1 (IBR, see §171.7 of this subchapter). Fuel cell systems for which the sole function is to charge a battery in the device are not permitted;

(ix) Fuel cell systems must be of a type that will not charge batteries when the consumer electronic device is

not in use; and

- (x) Each fuel cell cartridge and system that conforms to the requirements in this paragraph (a)(18) must be durably marked by the manufacturer with the wording: "APPROVED FOR CARRIAGE IN AIRCRAFT CABIN ONLY" to certify that the fuel cell cartridge or system meets the specifications in IEC/PAS 62282-6-1 (IBR, see §171.7 of this subchapter) and with the maximum quantity and type of fuel contained in the cartridge or system.
- (b) The exceptions provided in paragraph (a) of this section also apply to aircraft operators when transporting passenger or crewmember baggage that has been separated from the passenger or crewmember, including transfer to another carrier for transport to its final destination.
- (c) The requirements to submit incident reports as required under §§ 171.15 and 171.16 of this subchapter apply to the air carrier.

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§175.20 Compliance and training.

An air carrier may not transport a hazardous material by aircraft unless each of its hazmat employees involved

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in that transportation is trained as required by subpart H of part 172 of this subchapter. In addition, air carriers must comply with all applicable hazardous materials training requirements in 14 CFR Part 121 and 135.

§ 175.25 Notification at air passenger facilities of hazardous materials restrictions.

Each person who engages in for-hire air transportation of passengers shall display notices of the requirements applicable to the carriage of hazardous materials aboard aircraft, and the penalties for failure to comply with those requirements. Each notice must be legible, and be prominently displayed so it can be seen by passengers in locations where the aircraft operator issues tickets, checks baggage, and maintains aircraft boarding areas.

- (a) At a minimum, each notice must communicate the following information:
- (1) Federal law forbids the carriage of hazardous materials aboard aircraft in your luggage or on your person. A violation can result in five years' imprisonment and penalties of \$250,000 or more (49 U.S.C. 5124). Hazardous materials include explosives, compressed gases, flammable liquids and solids, oxidizers, poisons, corrosives and radio-active materials. Examples: Paints, lighter fluid, fireworks, tear gases, oxygen bottles, and radio-pharmaceuticals.
- (2) There are special exceptions for small quantities (up to 70 ounces total) of medicinal and toilet articles carried in your luggage and certain smoking materials carried on your person. For further information contact your airline representative.
- (b) The information contained in paragraph (a) of this section must be printed:
- (1) In legible English and may, in addition to English, be displayed in other languages;
- (2) In lettering of at least 1 cm (0.4) inch) in height for the first sentence and 4.0 mm (0.16) inch) in height for the other sentences; and
- (3) On a background of contrasting color.
- (c) Size and color of the notice is optional. Additional information, exam-

ples, or illustrations, if not inconsistent with the required information, may be included.

§ 175.26 Notification at cargo facilities of hazardous materials requirements.

- (a) Each person who engages in the acceptance or transport of cargo for transportation by aircraft shall display notices to persons offering such cargo of the requirements applicable to the carriage of hazardous materials aboard aircraft, and the penalties for failure to comply with those requirements, at each facility where cargo is accepted. Each notice must be legible, and be prominently displayed so it can be seen. At a minimum, each notice must communicate the following information:
- (1) Cargo containing hazardous materials (dangerous goods) for transportation by aircraft must be offered in accordance with the Federal Hazardous Materials Regulations (49 CFR parts 171 through 180).
- (2) A violation can result in five years' imprisonment and penalties of \$250,000 or more (49 U.S.C. 5124).
- (3) Hazardous materials (dangerous goods) include explosives, compressed gases, flammable liquids and solids, oxidizers, poisons, corrosives and radioactive materials.
- (b) The information contained in paragraph (a) of this section must be printed:
- (1) Legibly in English, and, where cargo is accepted outside of the United States, in the language of the host country; and
- (2) On a background of contrasting color.
- (c) Size and color of the notice are optional. Additional information, examples, or illustrations, if not inconsistent with required information, may be included.
- (d) *Exceptions*. Display of a notice required by paragraph (a) of this section is not required at:
- (1) An unattended location (e.g., a drop box) provided a general notice advising customers of a prohibition on shipments of hazardous materials through that location is prominently displayed; or